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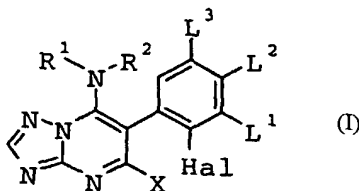
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ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: 6-(2-HALOGENPHENYL)-TRIAZOLOPYRIMIDINES DERIVATIVES AND THEIR USE AS FUNGICIDE



(I)

(57) Abstract: Substituted 6-(2-halogenphenyl)-triazolopyrimidines of formula (I) in which R¹ denote alkyl, alkenyl, alkynyl, alkadienyl, haloalkyl, haloalkenyl, cycloalkyl, phenyl, naphthyl, or a 5- or 6-membered saturated, unsaturated, or aromatic heterocycle, containing one to four nitrogen atoms or one to three nitrogen atoms and one sulfur or oxygen atom, wherein R¹ and R² radicals may be substituted as defined in the description, R² denote hydrogen, or a group mentioned for R¹; or R¹ and R² together with the interjacent nitrogen atom represent a 5- or 6-membered heterocycle, containing one to four nitrogen atoms or one to three nitrogen atoms and one sulfur or oxygen atom, which ring may be substituted as defined in the description; Hal is halogen; L¹, L³ in-

dependently denote hydrogen, halogen, or alkyl; L² is hydrogen, halogen, haloalkyl, or NH₂, NHR^b, or N(R^b)₂, wherein R^b is as defined in the description, wherein at least one from L¹, L², and L³ is not hydrogen; X is halogen, cyano, alkyl, alkoxy, haloalkoxy or alkenyloxy processes for their preparation, compositions containing them and to their use for combating phytopathogenic fungi.

INTERNATIONAL SEARCH REPORT

International Application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D487/04 A01N43/90 C07C69/76

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A01N C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 46608 A (AMERICAN CYANAMID CO) 22 October 1998 (1998-10-22) cited in the application page 1, line 2-5 examples 47,62 claims 1,8-10	1-10
X	FR 2 765 875 A (AMERICAN CYANAMID CO) 15 January 1999 (1999-01-15) page 1, line 1-6 claim 1	1-10
X	EP 0 550 113 A (SHELL INT RESEARCH) 7 July 1993 (1993-07-07) page 1, line 1-3 claim 1	1-10
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

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- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

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International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 784 991 A (AMERICAN CYANAMID CO) 28 April 2000 (2000-04-28)	1,3-10
A	claim 1 ---	2
X	US 5 986 135 A (COTTER HENRY VAN TUYL ET AL) 16 November 1999 (1999-11-16) column 1, line 1-10 examples 8,15,16 ---	1-10
A	FR 2 784 381 A (AMERICAN CYANAMID CO) 14 April 2000 (2000-04-14) claim 1 ---	1-10
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A	WO 02 50077 A (HENRICH MARIELOUISE ;MAULER-MACHNIK ASTRID (DE); HILGERS PETRA (DE) 27 June 2002 (2002-06-27) claim 1 ---	1-10
P,X	WO 02 094020 A (KUGLER MARTIN ;KUHN DIETMAR (DE); RIECK HEIKO (DE); BAYER AG (DE)) 28 November 2002 (2002-11-28) claim 1 -----	1-10

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP 03/12276

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
1(part), 2(part), 3-10
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1(part),2(part),4-10

Triazolopyrimidine derivatives, when R2= hydrogen, R1= aliphatic group (claim 1,2,4,5);process to make these compounds (claims 6 and 7); their intermediates (claim 8); their fungicidal composition (claim 9) and use of these compounds for controlling phytopathogenic fungi (claim 10).

2. Claims: 1(part),4-10

Triazolopyrimidine derivatives, when R2= hydrogen, R1= cyclic group (claim 1,4 and 5);process to make these compounds (claims 6 and 7); their intermediates (claim 8); their fungicidal composition (claim 9) and use of these compounds for controlling phytopathogenic fungi (claim 10).

3. Claims: 1(part),2(part), 4-10

Triazolopyrimidine derivatives, when R2= aliphatic group, R1= aliphatic group (claim 1,2,4 and 5);process to make these compounds (claims 6 and 7); their intermediates (claim 8); their fungicidal composition (claim 9) and use of these compounds for controlling phytopathogenic fungi (claim 10).

4. Claims: 1(part),4-10

Triazolopyrimidine derivatives, when R2= aliphatic group, R1= cyclic group (claim 1,4 and 5);process to make these compounds (claims 6 and 7); their intermediates (claim 8); their fungicidal composition (claim 9) and use of these compounds for controlling phytopathogenic fungi (claim 10).

5. Claims: 1(part), 4-9

Triazolopyrimidine derivatives, when R2= cyclic group, R1= cyclic group (claim 1,4 and 5);process to make these compounds (claims 6 and 7); their intermediates (claim 8); their fungicidal composition (claim 9) and use of these compounds for controlling phytopathogenic fungi (claim 10).

6. Claims: 1(part), 3-10

Triazolopyrimidine derivatives, when R1 and R2 together form an heterocycle (claim 1,3,4 and 5);process to make these compounds (claims 6 and 7); their intermediates (claim 8); their fungicidal composition (claim 9) and use of these

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

compounds for controlling phytopathogenic fungi (claim 10).

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/12276

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International Application No

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